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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,236	08/28/2003	Tatsutoshi Abe	393032040300	6413

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EXAMINER	
ANWARI, MACEEH	
ART UNIT	PAPER NUMBER
2444	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/650,236	ABE ET AL.	
	Examiner	Art Unit	
	MACEEH ANWARI	2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2 and 4-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to communications file on 12/29/2008. **Claim(s) 1, 2, 4, 5 and 7- 10** have been amended. **Claim(s) 3** have been canceled. No other claims have been amended, added, or canceled. Accordingly, **claim(s) 1-2 and 4-10** are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/29/2008 has been entered.

Response to Arguments

3. Applicant's arguments filed 12/29/2008 have been fully considered but they are not persuasive. In substance the applicant argues that **Fujimori-Nakai** fail to disclose or teach: 1) transferring a command with a time-stamp using asynchronous transfer; 2) a target device having a transmitter that transmits “a interim response representing to the controller reflecting that the received command will be executed when a current time based on the synchronized clock reaches a time represented by the time-stamp included in the command".

4. In response to 1), the examiner respectfully disagrees. **Fujimori-Nakai** disclose in asynchronous communications of IEEE 1394, the transmission (from the transmission

node) of the header information and actual data to the node at the destination **(Nakai: Figures 2-5 and par. 13)**.

5. In response to 2), the examiner respectfully disagrees. **Fujimori-Nakai** disclose a target device having a transmitter that transmits "a interim response representing to the controller reflecting that the received command will be executed when a current time based on the synchronized clock reaches a time represented by the time-stamp included in the command" **(Nakai: Figures 18 and 24 and par. 152; the response node executes the received command content when reaching the received time, that is, the time of the time stamp)**.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-2 and 4-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujimori et al.** (hereinafter **Fujimori**) U.S. Patent No.: 6,148,051 and further in view of **Nakai et al.** (hereinafter **Nakai**) U.S. Publication No.: 2002/0064185 A1.

8. Regarding **Claim 1 Fujimori** discloses: A command synchronization establishment system comprising:

a network wherein a cycle master node managing time on the network periodically transmits a cycle start packet including time information to each node connected to the network, each node synchronizes its clock in accordance with

the time information included in the cycle start packet so as to assure isochronism on the network by sharing the synchronized clock with each other node **(Fujimori: Figures 1- 6 and Col. 6 lines 13- 21; master node, cycle time extracting circuit, cycle start packet and cycle packet train. Nakai: Figures 2 and 6 and par. 1; cycle master, cycle start, synchronizing among nodes and time stamps)**, data is transferred by an isochronous transfer, and a command is transferred by an asynchronous transfer using a time period after the isochronous transfer until the next cycle start packet;

a controller as a node connected to the network, comprising a transmitter that transmits a command including a time-stamp based on the synchronized clock to a target apparatus by using the asynchronous transfer; and

the target apparatus as another node connected to the network, comprising a receiver that receives the command, a storage device that temporally stores the received command in order not to execute the received command instantly, a transmitter that transmits an interim response to the controller reflecting that the received command will be executed when a current time based on the synchronized clock reaches a time represented by the time-stamp included in the command, an executing device that executes the received command when the current time based on the synchronized clock reaches the time represented by the time-stamp included in the command, and a replying device that provides a complete response indicating completion of executing the command.

However, **Fujimori** remains silent on the specific teachings of data is transferred by an isochronous transfer, and a command is transferred by an asynchronous transfer using a time period after the isochronous transfer until the next cycle start packet;

a controller as a node connected to the network, comprising a transmitter that transmits a command including a time-stamp based on the synchronized clock to a target apparatus by using the asynchronous transfer; and

the target apparatus as another node connected to the network, comprising a receiver that receives the command, a storage device that temporally stores the received command in order not to execute the received command instantly, a transmitter that transmits an interim response to the controller reflecting that the received command will be executed when a current time based on the synchronized clock reaches a time represented by the time-stamp included in the command, an executing device that executes the received command when the current time based on the synchronized clock reaches the time represented by the time-stamp included in the command, and a replying device that provides a complete response indicating completion of executing the command.

In the same field of endeavor, **Nakai** discloses an data is transferred by an isochronous transfer, and a command is transferred by an asynchronous transfer using a time period after the isochronous transfer until the next cycle start packet

(Nakai: Figures 18 and par. 13, 24 and 152; command content and asynchronous band);

a controller as a node connected to the network, comprising a transmitter that transmits a command including a time-stamp based on the synchronized clock to a target apparatus by using the asynchronous transfer **(Figures 2, 5 and 18 and par. 13, 24 and 152; command content, time stamps and asynchronous transmission)**; and

the target apparatus as another node connected to the network, comprising a receiver that receives the command, a storage device that temporally stores the received command in order not to execute the received command instantly, a transmitter that transmits an interim response to the controller reflecting that the received command will be executed when a current time based on the synchronized clock reaches a time represented by the time-stamp included in the command, an executing device that executes the received command when the current time based on the synchronized clock reaches the time represented by the time-stamp included in the command **(Figures 18 & 24 and par. 152; request/response nodes, reaching the received time and time stamps)**, and a replying device that provides a complete response indicating completion of executing the command **(Figures 18 & 24 and par. 152- 153; request/response nodes and acknowledgement packets)**.

Accordingly it would have been obvious for one of ordinary skill in the networking art to modify or incorporate **Nakai's** teachings of waiting until the time

stamp time before executing an action with the teachings of **Fujimori**, to provide for a more efficiency in synchronizing systems.

9. Regarding **claim 4 Fujimori-Nakai** further discloses:

wherein said each node connected to the network shares the synchronized clock with each other node by copying the time information included in the cycle start packet to a cycle time register in each node, and said time-stamp included in the command is in a format including a part or all formats of the cycle time register **(Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp register, cycle timing register, cycle period, clock generating circuit and delay and comparing circuit and synchronizing internal time data)**.

10. Regarding **claim 5 Fujimori-Nakai** further discloses:

wherein said command includes a flag instructing the executing device to execute the command instantly or when the current time reaches the time represented by the time-stamp included in the command, and the target apparatus determines whether to execute the received command instantly or when the current time reaches the time represented by the time-stamp in accordance with the flag **(Nakai: Figures 18- 25 and Par. 152; time stamps, acknowledgement packets and waiting until time stamp time and starting action)**.

11. Regarding **claim 6 Fujimori-Nakai** further discloses:

wherein the flag uses a part of a format of the time-stamp included in the command **(Figures 1-5B and Abstract & Col. 4 lines 8-26; time stamp**

register, receipt register, time register, cycle timing, cycle period, clock generating circuit and delay and comparing circuit and data packets and synchronizing internal time data).

Claims 2 and 7- 10 are substantially the same as **claims 1 and 4- 6** and are therefore rejected using the same rationale as in **claims 1 and 4- 6**.

Examiner Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. **Basso et al. (European Patent Office Application No.: 0586768 A1)**, directed towards a system for providing a plurality of timers to perform the timing of event occurrences within a network.

b. **Morrow et al. (U.S. Patent No.: 6, 405, 275 B1)**, directed towards IEEE 1394 common isochronous packet (CIP) enchantments for host controllers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MACEEH ANWARI whose telephone number is

(571)272-7591. The examiner can normally be reached on Monday-Friday 7:30-5:00 PM ES.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.A.
/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444